

CQ202-4B-2
 CQ202-4D-2
 CQ202-4M-2
 CQ202-4N-2
 4.0 AMP TRIAC
 200 THRU 800 VOLTS

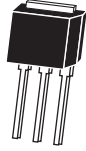
CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CQ202-4B-2 series type is an Epoxy Molded Silicon Triac designed for full wave AC control applications featuring gate triggering in all four (4) quadrants.

MARKING CODE: FULL PART NUMBER



TO-202-2 THYRISTOR CASE

MAXIMUM RATINGS: ($T_C=25^\circ\text{C}$ unless otherwise noted)

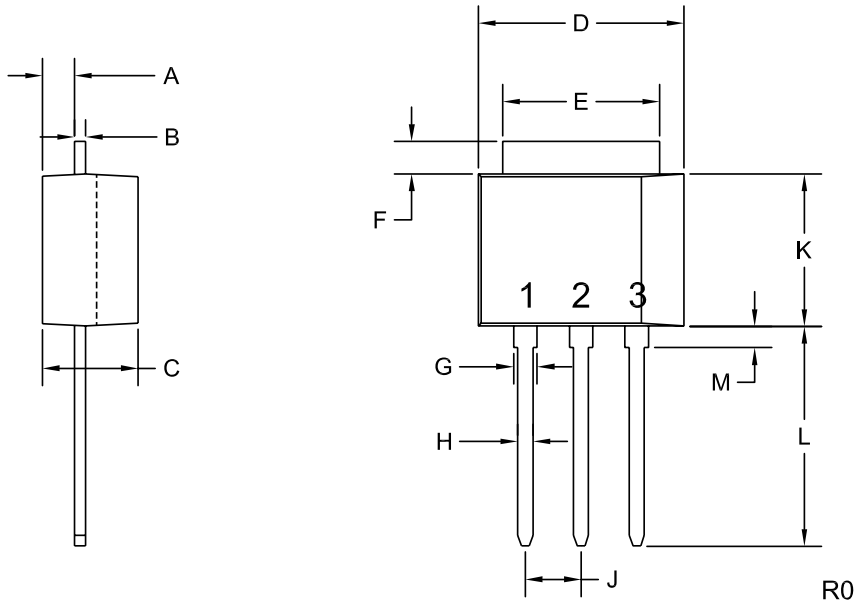
	SYMBOL	CQ202 -4B-2	CQ202 -4D-2	CQ202 -4M-2	CQ202 -4N-2	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}	200	400	600	800	V
RMS On-State Current ($T_C=80^\circ\text{C}$)	$I_T(\text{RMS})$		4.0			A
Peak Non-Repetitive Surge Current ($t=8.3\text{ms}$)	I_{TSM}		40			A
Peak Non-Repetitive Surge Current ($t=10\text{ms}$)	I_{TSM}		35			A
I^2t Value for Fusing ($t=10\text{ms}$)	I^2t		6.0			A^2s
Peak Gate Power ($t_p=10\mu\text{s}$)	P_{GM}		3.0			W
Average Gate Power Dissipation	$P_{G(AV)}$		0.2			W
Peak Gate Current ($t_p=10\mu\text{s}$)	I_{GM}		1.2			A
Storage Temperature	T_{stg}		-40 to +150			$^\circ\text{C}$
Junction Temperature	T_J		-40 to +125			$^\circ\text{C}$
Thermal Resistance	θ_{JA}		60			$^\circ\text{C}/\text{W}$
Thermal Resistance	θ_{JC}		7.5			$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS: ($T_C=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}	Rated V_{DRM} , $R_{GK}=1\text{K}\Omega$			10	μA
I_{DRM}	Rated V_{DRM} , $R_{GK}=1\text{K}\Omega$, $T_C=125^\circ\text{C}$			200	μA
I_{GT}	$V_D=12\text{V}$, QUAD I, II, III		6.6	20	mA
I_{GT}	$V_D=12\text{V}$, QUAD IV		35	50	mA
I_H	$R_{GK}=1\text{K}\Omega$		5.2	25	mA
V_{GT}	$V_D=12\text{V}$, QUAD I, II, III		1.1	1.5	V
V_{GT}	$V_D=12\text{V}$, QUAD IV		2.0	2.5	V
V_{TM}	$I_{TM}=6.0\text{A}$, $t_p=380\mu\text{s}$		1.25	1.60	V
dv/dt	$V_D=2/3 V_{DRM}$, $T_C=125^\circ\text{C}$	5.0			$\text{V}/\mu\text{s}$

R1 (27-June 2005)

TO-202-2 THYRISTOR CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) MT1
- 2) MT2
- 3) GATE

NOTE: TAB IS COMMON
TO PIN 2 (MT2)

MARKING CODE:

FULL PART NUMBER

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.057	0.061	1.45	1.55
B	0.019	0.021	0.49	0.52
C	0.175	0.180	4.44	4.56
D	0.376	0.388	9.55	9.85
E	-	0.350	-	8.89
F	-	0.070	-	1.78
G	0.035	0.043	0.90	1.10
H	0.023	0.028	0.59	0.71
J	0.098	0.102	2.49	2.59
K	0.280	0.301	7.12	7.65
L	0.406	0.425	10.30	10.80
M	0.024	0.059	0.60	1.50

TO-202-2 Thyristor (REV: R0)

R1 (27-June 2005)